

REMARKS

This Amendment responds to the Office Action dated February 26, 2003. A diligent effort has been made to respond to all of the objections and rejections contained in the Office Action and reconsideration is respectfully requested.

Claims 1-16 and 20-31 remain pending in this application. Claim 17 is cancelled. Claims 18, 19 and 32-43 were previously cancelled. New claims 44-52 are added for consideration.

A. Drawing Objections

The drawing objections raised at paragraphs 1-3 of the Office Action should be withdrawn in view of the following remarks.

The reference character 172 has been properly used to designate both the CATV connector and the DBS connector in Figure 9 because both of those connectors are of the same type. As shown in Figure 9, both connectors are "F" type connectors. Thus it is proper to use the same character "172" to show that the connectors for the CATV signals and the DBS signals are the same type of connector.

The reference character "56" is used in Figures 9-11 to consistently refer to the "Ringing SLICs," not the POTS lines as the Office Action suggests. Although the SLIC circuitry is labeled "POTS" in Figure 10, this is just another way of indicating that this is the Ringing SLIC for the POTS line. Applicants submit that no confusion is created in these drawings and therefore no correction is needed.

With respect to the claim phrase "drop processor unit" from Claim 17, this claim has now been cancelled and thus further discussion of this objection is moot.

B. Rejections over Stalley and Foltzer and Ethridge

Claim 1, as presently amended, clearly distinguishes over the combination of Stalley, Foltzer and Ethridge set forth in paragraph 13 of the Office Action. Applicants have reviewed the Examiner's comments regarding the applicability of Stalley and Foltzer to the claims of this application, but respectfully disagree with the Examiner.

Claim 1, as now amended, clarifies that the telephony data/distribution circuitry combines the telephony packet signals and the data packet signals into "merged optical telephony/data packet signals at a second wavelength, wherein each of the merged optical telephony/data packet signals has a common format and includes an address identifier that uniquely associates the telephony or data packet signals with a particular subscriber." These "merged" signals, which include both telephony and data packet signals having a common format and including an address identifier, are transmitted between the central office location and the subscriber's location via the passive optical network as a merged data transmission. The merged signals are only de-merged at the subscriber location, they are not de-merged at any point along the transport path over the passive optical network. Moreover, according to Claim 1, each of the home network units is associated with an address identifier for a particular subscriber so that the home network unit can determine which of the merged telephony or data packet signals is directed to that particular subscriber. None of the cited references referred to in the Office Action discloses or suggests such a combination of functions and structure for transporting merged telephony and data packets.

Stalley, for example, relates only to telephony signaling and video on demand transmissions, it does not relate to merged voice and data traffic, and it provides no teaching at all regarding formatting the merged voice and data traffic according to a common format or providing address identifiers within the merged voice and data packets for identifying the proper subscriber to receive the voice or data transmissions.

Foltzer, like Stalley, describes a system for transporting voice signals and video signals, it does not teach merging telephony packet signals with data packet signals having a common format or providing address identifiers in both the telephony and data signal packets to identify the proper subscriber to receive the information.

Finally, Ethridge, which is assigned to the assignee of the present application, does not teach a passive optical network, but rather is a Fiber to the Curb system having many active electronics between the central office location and the subscriber location. Its applicability to the present claims, which are limited to a passive optical network that maintains a downstream multiplexed optical signal between the central office and the subscriber locations, therefore, is questionable. Nevertheless, although Ethridge discloses multiplexing of PCM voice signals and packet data signals, it does not teach "merging" the telephony voice packets and the data packets into a common format in which both the telephony and data packets include an address identifier. To the contrary, Ethridge teaches that the voice information is maintained in the PCM format and the data information is maintained in the Ethernet packet format. Moreover, the routing of both forms of information is dependent upon the physical input/output port connection to the Optical Network Unit, and thus Ethridge has no need to provide any type of embedded address identifier in the voice and data signals, as required by Claim 1. Thus, even if Ethridge were applicable to

the passive optical network technology described in Claim 1, it does not provide the missing disclosure from Stalley and Foltzer to maintain the 103 rejections.

For all of these reasons, the combination of Stalley, Foltzer and Ethridge does not disclose all of the elements and limitations of Claim 1, and thus the 35 USC 103 rejections should be withdrawn. The dependent claims are distinguishable from these references for at least the same reasons as claim 1. Moreover, many of the dependent claims include elements and limitations which are clearly missing from these references. For example, claim 20 recites the limitation that both the telephony and data packet signals are formatted as Ethernet packet signals. Claim 21 further adds that an Ethernet ID field is provided within each of the Ethernet-formatted telephony and data packet signals for identifying whether a particular packet is a telephony packet signal or a data packet signal. Claim 22 adds that the address identifier is an Ethernet MAC address for routing both the telephony and data packet signals to the appropriate home network unit. Claim 23 adds the limitation that the optical interface units at the central office location also have associated Ethernet MAC address for routing telephony and data packet signals from the home network units to the proper optical interface units. These claims are identified by way of example only to point out the distinctions between the dependent claims and the cited art.

The new claims 44-52 provide many additional element and limitations that are not disclosed in Stalley, Foltzer or Ethridge. For example, claim 46 includes the limitation that both the home network units at the subscriber locations and the telephony/data distribution circuitry at the central office location prioritize the transmission of the voice packets over the data packets so as to reduce the latency of voice traffic over the passive optical network. Claim 47 adds the limitation that the home network units provide circuitry that pauses the transmission of a pending

data packet signal if a telephony packet signal is ready for transmission at the home network unit. Claim 48 clarifies that the merged optical telephony/data packet signals are time division multiplexed. Claim 49-51 clarify the structure of the passive optical network and provide for a defined upstream timeslot associated with each of the home network units. Claim 52 adds the limitation that a home network unit may be coupled to a subscriber data network having a plurality of addressable computing devices, and wherein the home network unit includes circuitry for detecting the network addresses of the subscriber's computing devices. All of these claims are distinguishable from Stalley, Foltzer and Ethridge and thus are independently allowable over this combination of references in addition to being allowable as being dependent from Claim 1.

C. Rejections over Fussganger

The Office Action also rejected Claim 1 as being obvious over Fussganger (US 5,202,780) in view of Fischer (DE 4328484). Applicants strongly traverse this rejection.

Fussganger does not provide the teaching alleged by the Examiner. Fussganger does not provide the first element of claim 1, which is "optical video distribution circuitry for combining analog television signals occupying a first bandwidth and digital television signals occupying a second bandwidth that is at a higher frequency than the first bandwidth into combined optical video signals at a first wavelength." The portion of Fussganger relied upon by the Examiner for this element (Col. 2, Lines 50-63; Col. 4, Lines 62-64) has been reviewed and it does not provide the disclosure required to anticipate this claim element. Fussganger never teaches that analog and digital video signals at two distinct wavelengths should be combined, rather it merely indicates that the single video signal transmission may be either analog or digital. Thus, the

reference does not teach the claim limitation. For this reason alone the rejection over Fussganger should be withdrawn.

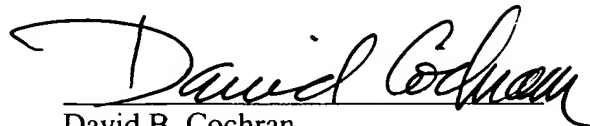
Furthermore, amended Claim 1 clearly distinguishes over Fussganger because Fussganger provides no teaching regarding the claim limitation of providing "merged optical/telephony data packet signals" having a common format and including an address identifier that uniquely associates the telephony or data packet signals with a particular subscriber. Moreover, Fussganger does not disclose associating an address identifier for a particular subscriber with each home network unit so that the home network unit can determine which of the transported telephony and data packet signals are directed to the particular subscriber, as set forth in amended Claim 1. For this additional reason the rejections over Fussganger should be withdrawn.

As with the rejections over Stalley, Foltzer and Ethridge, the dependent claims and the new claims are likewise distinguishable from Fussganger.

It is believed that all of the objections and rejections have been overcome by this Amendment and a notice of allowability is hereby requested. To the extent that there are any remaining issues in this application, the attorney for the applicants specifically requests a telephonic interview with the Examiner to resolve these issues.

Respectfully submitted,

JONES DAY

A handwritten signature in black ink, reading "David B. Cochran". The signature is fluid and cursive, with a large initial "D" and "C".

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